Amendments to the Claims:

Following is a complete listing of the claims pending in the application, as amended:

1. (currently amended) An array of separated lipid bilayers, comprising

a substrate having a surface defining a plurality of distinct bilayer-compatible surface regions,

a plurality of discrete lipid bilayer expanses in associated surface regions, said expanses having inner and outer bilayer surfaces,

an aqueous film interposed between each bilayer-compatible surface region and the lower surface of the corresponding lipid bilayer expanse,

each of said expanses containing one or more lipids derivatized with an oligonucleotide having a surface region specific oligonucleotide sequence and extending from the outer surface of the associated expanse,

a bulk aqueous phase covering the lipid bilayer expanses, and

at least one biomolecule anchored to at least one of the lipid bilayer expanses through a complementary oligonucleotide sequence capable of specifically hybridizing with the surface region specific oligonucleotide sequence in that expanse, such that the biomolecule is anchored to that expanse, wherein one or more of the biomolecules is a vesicle <u>including at least one receptor associated with the vesicle, the receptor having a binding site located on the exterior of the vesicle and being</u> capable of specifically binding a test agent.

2. (previously presented) The array of claim 1, wherein the array further includes one or more discrete lipid bilayer patches associated with said expanses, where each such patch contains a biomolecule anchored to the associated expanse through said hybridized oligonucleotides.

3. (previously presented) The array of claim 2, wherein the lipid bilayer expanses on different associated surface regions have different compositions.

4. (previously presented) The array of claim 3, wherein the oligonucleotide associated with each lipid bilayer expanse includes a different oligonucleotide.

5. (canceled)

6. (previously presented) The array of claim 2, further comprising one or more second biomolecules associated with at least one of the bilayer expanses, said second biomolecule(s) being able to move substantially freely within the associated expanse.

7. (previously presented) The array of claim 6, wherein at least some of the different bilayer expanses have different second biomolecules.

8. (previously presented) The array of claim 1, wherein the biomolecule is coupled to an oligonucleotide with a known sequence, such that the identity of the biomolecule may be determined from the sequence of the oligonucleotide.

9. (original) The array of claim 1, wherein said discrete lipid bilayer expanses in associated surface regions are separated by one or more barrier regions.

10. (original) The array of claim 1, wherein said discrete lipid bilayer expanses in associated surface regions are separated from one another by self-limiting lateral diffusion, without physical barriers between the expanses on the substrate surface.

11. (original) The array of claim 1, wherein said distinct bilayer-compatible surface regions on the substrate are formed from a material selected from the group consisting of SiO_2, MgF_2, CaF_2, and mica.

12. (previously presented) The array of claim 1, wherein the lipid bilayer expanses are comprised of phosphatidylcholine.

13. (withdrawn) A method of using the lipid patch array of claim 6 to detect membrane-bound biomolecular interactions, comprising

incubating the array under conditions effective to allow for the formation of biomolecular complexes between the second biomolecules, and

detecting any formed biomolecule complexes.

14. (withdrawn) The method of claim 13 for screening for molecules that enhance or disrupt membrane-bound biomolecular interactions, further comprising

contacting the array, prior to or after said incubating, with one or more molecules under conditions which allow for the interaction of said molecules with said biomolecules or biomolecular complexes,

detecting any formed biomolecular complexes, and

comparing the results from the previous step to the results from the detecting step of claim 13 to determine whether the one or more molecules enhanced or disrupted membrane-bound biomolecular interactions.

15. (withdrawn) The method of claim 13, wherein the degree of complex formation is quantitated.

16. (withdrawn) The method of claim 13, wherein said biomolecules are selected from the group consisting of peptides, proteins, carbohydrates, cytokines, growth factors, hormones, enzymes, toxins, drugs, oligonucleotides, lipids, and combinations thereof.

17. (withdrawn) The method of claim 13, wherein said molecules are selected from the group consisting of peptides, proteins, carbohydrates, cytokines, growth factors, hormones, enzymes, toxins, drugs, oligonucleotides, lipids, and combinations thereof.

18. (withdrawn) A method of manipulating lipid-bilayer regions on a substrate, comprising

applying, to the array of claim 1, a controlled laminar-flow stream of an aqueous liquid, under flow conditions effective to remove a portion of the expanse in the path of said stream, wherein remaining portions of said expanse are substantially retained in their original position(s) on said region, adjacent exposed portion(s) of said region.

19-20. (canceled)

21. (withdrawn) The array of claim 1, wherein the lipid bilayer expanses are comprised of at least one lipid selected from the group consisting of phosphatidylethanolamine, phosphatidylserine, phosphatidic acid, phosphatidylinositol, phosphatidylglycerol, and sphingomyelin.

22. (new) The array of claim 1, wherein said receptor is a membrane protein.

23. (new) The array of claim 22, wherein said membrane protein is a transmembrane protein.

24. (new) The array of claim 1, wherein said vesicle has a size from between 30 to 200 nm.

25. (new) The array of claim 1, wherein said oligonucleotide and complementary oligonucleotide have a length of between 16 to 24 nucleotides.